

CLAIMS

What is claimed is:

1. A method for associating instrumentation data with a simulation model within a batch simulation farm in which a simulation client communicates with an instrumentation server to process simulation data with respect to said simulation model, said method comprising:

delivering an instrumentation eventlist from said simulation client to said instrumentation server, wherein said eventlist contains instrumentation event information for said simulation model; and

within said instrumentation server:

computing a digital signature that uniquely identifies contents of said instrumentation eventlist as being associated with said simulation model; and

in response to receiving simulation data from said simulation client, utilizing said digital signature to associate said simulation data with said simulation model.

2. The method of claim 1, further comprising generating said eventlist within an instrumentation load tool.

3. The method of claim 2, wherein said generating said eventlist comprises, during model build of said one simulation model, producing a set of files containing information detailing the exact number and content of instrumentation events associated with said simulation model.

1 4. The method of claim 3, wherein said set of files is produced such that each file
2 designates a single class of instrumentation events.

1 5. The method of claim 1, wherein said instrumentation server computes said digital
2 signature utilizing a cyclic redundancy check algorithm, said method further comprising
3 computing a digital signature within said simulation client utilizing said cyclic
4 redundancy check algorithm.

1 6. The method of claim 1, further comprising:

2 within said simulation client:

3 collecting aggregate instrumentation event information resulting from
4 simulation of said simulation model, wherein said aggregate instrumentation
5 event information is included within said simulation data;

6 generating an aggregate instrumentation event packet containing said
7 aggregate instrumentation event information and said digital signature; and
8

9 delivering said aggregate instrumentation packet to said instrumentation
10 server.

1 7. The method of claim 6, wherein said utilizing said digital signature to associate
2 said simulation data with said simulation model further comprises:

3 comparing the digital signature contained in said aggregate instrumentation
4 packet with the digital signature computed by said instrumentation server to determine
5 whether or not a match exists;

responsive to a successful match between the digital signature contained in said aggregate instrumentation packet and the digital signature computed by said instrumentation server, processing said aggregate instrumentation packet within said instrumentation server; and

responsive to a failed match between the digital signature contained in said aggregate instrumentation packet and the digital signature computed by said instrumentation server, discarding said aggregate instrumentation packet.

8. A system for associating instrumentation data with a simulation model within a batch simulation farm in which a simulation client communicates with an instrumentation server to process simulation data with respect to said simulation model, said system comprising:

processing means for delivering an instrumentation eventlist from said simulation client to said instrumentation server, wherein said eventlist contains instrumentation event information for said simulation model; and

within said instrumentation server:

processing means for computing a digital signature that uniquely identifies contents of said instrumentation eventlist as being associated with said simulation model; and

processing means responsive to receiving simulation data from said simulation client for utilizing said digital signature to associate said simulation data with said simulation model.

1 9. The system of claim 8, further comprising processing means for generating said
2 eventlist within an instrumentation load tool.

1 10. The system of claim 9, wherein said processing means for generating said
2 eventlist comprises processing means for producing a set of files containing information
3 detailing the exact number and content of instrumentation events associated with said
4 simulation model.

1 11. The system of claim 10, wherein said set of files is produced such that each file
2 designates a single class of instrumentation events.

1 12. The system of claim 8, wherein said instrumentation server computes said digital
2 signature utilizing a cyclic redundancy check algorithm, said system further comprising
3 processing means for computing a digital signature within said simulation client utilizing
4 said cyclic redundancy check algorithm.

1 13. The system of claim 8, further comprising:

2 within said simulation client:

3
4 processing means for collecting aggregate instrumentation event
5 information resulting from simulation of said simulation model, wherein said
6 aggregate instrumentation event information is included within said simulation
7 data;

8 processing means for generating an aggregate instrumentation event
9 packet containing said aggregate instrumentation event information and said
10 digital signature; and

processing means for delivering said aggregate instrumentation packet to said instrumentation server.

14. The system of claim 13, wherein said processing means for utilizing said digital signature to associate said simulation data with said simulation model further comprises:

processing means for comparing the digital signature contained in said aggregate instrumentation packet with the digital signature computed by said instrumentation server to determine whether or not a match exists;

processing means responsive to a successful match between the digital signature contained in said aggregate instrumentation packet and the digital signature computed by said instrumentation server for processing said aggregate instrumentation packet within said instrumentation server; and

processing means responsive to a failed match between the digital signature contained in said aggregate instrumentation packet and the digital signature computed by said instrumentation server for discarding said aggregate instrumentation packet.

15. A computer program product for associating instrumentation data with a simulation model within a batch simulation farm in which a simulation client communicates with an instrumentation server to process simulation data with respect to said simulation model, said computer program product comprising:

program instruction means for delivering an instrumentation eventlist from said simulation client to said instrumentation server, wherein said eventlist contains instrumentation event information for said simulation model; and

within said instrumentation server:

program instruction means for computing a digital signature that uniquely identifies contents of said instrumentation eventlist as being associated with said simulation model; and

program instruction means responsive to receiving simulation data from said simulation client for utilizing said digital signature to associate said simulation data with said simulation model.

16. The computer program product of claim 15, further comprising program instruction means for generating said eventlist within an instrumentation load tool.

17. The computer program product of claim 16, wherein said program instruction means for generating said eventlist comprises program instruction means for producing a set of files containing information detailing the exact number and content of instrumentation events associated with said simulation model.

18. The computer program product of claim 17, wherein said set of files is produced such that each file designates a single class of instrumentation events.

19. The computer program product of claim 15, wherein said instrumentation server computes said digital signature utilizing a cyclic redundancy check algorithm, said computer program product further comprising program instruction means for computing a digital signature within said simulation client utilizing said cyclic redundancy check algorithm.

1 20. The computer program product of claim 15, further comprising:

2 within said simulation client:

3 program instruction means for collecting aggregate instrumentation event
4 information resulting from simulation of said simulation model, wherein said
5 aggregate instrumentation event information is included within said simulation
6 data;
7

8 program instruction means for generating an aggregate instrumentation
9 event packet containing said aggregate instrumentation event information and
10 said digital signature; and

11 program instruction means for delivering said aggregate instrumentation
12 packet to said instrumentation server.

1 21. The computer program product of claim 20, wherein said program instruction
2 means for utilizing said digital signature to associate said simulation data with said
3 simulation model further comprises:

4 program instruction means for comparing the digital signature contained in said
5 aggregate instrumentation packet with the digital signature computed by said
6 instrumentation server to determine whether or not a match exists;

7 program instruction means responsive to a successful match between the digital
8 signature contained in said aggregate instrumentation packet and the digital signature
9 computed by said instrumentation server for processing said aggregate instrumentation
10 packet within said instrumentation server; and

11 program instruction means responsive to a failed match between the digital
12 signature contained in said aggregate instrumentation packet and the digital signature
13 computed by said instrumentation server for discarding said aggregate instrumentation
14 packet.

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